

A Preliminary Study on Local Economic Development and Migration in Rural Northeastern Thailand :

Progress Report to Lead to Rural Survey

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Abstract

The objective of this paper is to report research results obtained for six months from April, 1998 to September, 1998 during the period of one-year study abroad at Department of Geography, Faculty of Arts, Chulalongkorn University in Thailand. The aim of my research is to inspect the actual conditions of local economic development core in Northeastern region where lower order center than Bangkok, namely Khon Kaen city as regional growth urban center is located to influence its surrounding rural areas. Research methodology depends mainly on conducting the door to door household field survey in three villages which empirically make clear the level and geographical patterns of migration and local labour market by using the questionnaire.

I Background and Justification

Much has been so far said about the regional development structure of Thai economy characterized by over-concentration in Bangkok Metropolitan Region on the framework divided Thailand into two parts that it consists of Bangkok as capital city or primacy city and the vast rural area, that is, the rest of the country. It is well-known that Thailand which typically represents the pattern of the primacy of capital has been suffering from drastic socio-economic serious problems on the regional development structure. The disparity of income distribution between Bangkok Metropolitan Region and the vast rural area, the rest of the country may be just considered to become one of the most important topics.

Particularly, there has been the widest gap by income distribution between Bangkok Metropolitan Region and Northeastern Thailand which has the vast rural region. Its disparity has been intensified accompanying with the remarkable difference through the process of high economic growth led by the hyper-development of Bangkok Metropolitan Region since the latter of the 1980s. However, based on the regional disparity or imbalanced regional development mentioned above in the simple regional framework, the fact of the chronic expansion of the poverty in Northeastern

region may have been apt to be emphasized from beginning to end by contrast with the hyper-development of industrial activities in Bangkok.

Many studies of Thai economy in Japan have paid little attention to local economy or local development core which has been expected to play the definite role of the spatial organization in Thailand except a few studies. Full attention should be paid to the role and the function of local city or the area under the influence of it, further, the relative importance of local economy in improving the extreme imbalance of the regional development structure in Thailand. It is also greatly necessary to make thoroughly positive researches of local economy as the target areas narrowed down, through making clear the process and causes of the growth or decline in local city from viewpoint of the hierarchic regional structure, that is——Bangkok, local city and its hinterland, vast rural area comprising numerous villages as the smallest unit.

The goal of my research is to inspect the actual conditions of local economy, local economic development core in Northeastern region where marked lower order center than Bangkok, namely Khon Kaen city as regional growth urban center is located to influence its surrounding areas, especially focussing on the movement of labour force or migration away from them. The objective of this paper is mainly to report research results obtained for six months from April, 1998 to September, 1998 in Thailand. The author was invited as researcher by Department of Geography, Faculty of Arts, Chulalongkorn University in Thailand from April, 1998 to March, 1999 and have been researching for the above goal.

On basis of the above goal, research methodology depends mainly on conducting the door to door household field survey by using the questionnaire made by myself which empirically make clear the level and extent of linkage through the movement of labour force population or migration between Khon Kaen city as regional growth urban center and its surrounding rural areas, that is, three target villages selected out of a great number of villages within the radius of 100km to the west of it.

II Regional Income Disparity and Decentralization Policy

It is a long time since it was pointed out that the extreme imbalanced regional structure in Thailand increasingly brought about the poverty of Northeastern region accompanying with the serious income disparity among regions. The rapid economic growth by the strongly export-oriented economy in the latter half of 1980s led to drastic increase in GDP whose annual rate leveled off about 10% and this caused the

Table 1 Index of Household Income per a year by Region and Area (Urban, Rural)

Regional Division	1981	1986	1990	1994
BMR	177	191	208	199
Central Region	108	110	104	106
Urban	159	182	158	155
Semi-Urban	112	135	110	127
Rural	101	95	94	93
Northeastern Region	74	70	63	68
Urban	165	187	133	158
Semi-Urban	97	102	92	99
Rural	68	60	57	57
North Region	85	86	84	76
Urban	174	181	179	155
Semi-Urban	94	87	100	86
Rural	76	75	72	66
South Region	96	101	92	97
Urban	185	182	148	151
Semi-Urban	97	116	101	114
Rural	82	83	81	85

Source : National Statistical Office, Report of the Household Socio-Economic Survey

Note:

- 1) Figures in the table show indexes respectively on occasion where national average of household income in each year is 100. National average of household income in 1981, 1986, 1990 and 1994 are 40,536 Baht, 43,572 Baht, 67,500 Baht and 99,144 Baht respectively.
- 2) BMR means Bangkok Metropolitan Region including Bangkok Metropolitan Administration, Nonthaburi province, Pathum Thani province and Samut Prakan Province.
- 3) According to the definition of Population Census, Thetsaban (Municipal District) and Sukhaphiban (Sanitary District) correspond to Urban and Semi-Urban area respectively.

more and more expansion of regional income disparity.

It has been that the rate of income per household/ a year in Northeastern region was 70 lower than 100 of the national average index, compared with 86 in North region, 101 in South region, especially about 36% lower than that of Bangkok Metropolitan Region in 1986 at beginning of rapid economic growth, as shown in the table 1. And the regional disparity between Bangkok Metropolitan Region and the other four regions, which had been intensified since 1981 on the whole, peaked during

high economic growth by the hyper development of Bangkok Metropolitan Region, from 1986 to 1990 and began to reduce in the former half of 1990s, from 1990 to 1994.

During rapid economic growth in the latter half of 1980s, Northeastern region had experienced the lowest rate of income distribution per household/a year as usual compared with the other regions, specifically Bangkok Metropolitan Region with getting worse, although its absolute value had continued to increase. However, real wages which was considered as a influential factor bringing about the expansion of regional income distribution in urban economy remained flat until 1990 because labour market did not tighten to the extent of attracting extra labour. It may be guessed that remarkable income disparity among regions since the latter half of 1980s was closely connected with the greater richness in high-level income household groups or, so to speak, new middle class in Bangkok Metropolitan Region led by 1998-1990 bubble economy which brought about big property interests based on the twin forces of asset inflation and credit availability.

Further, as shown in table 1, the poverty of Northeastern region by the outstanding regional income disparity can be intensively seen in its rural areas in which agriculture sector is predominant one and its productivity is extremely low. The fact should be paid attention that income disparity per household between rural and municipal (urban) areas within the same Northeastern region has been outstandingly as great as that among regions of Thailand.

More interestingly, income disparity per household between Bangkok Metropolitan Area and municipalities in each region did not almost exist until 1986, which expanded with the difference 10 to 7 in 1990 and reduced in 1994, resulting in reducing the income disparity between rural and municipal areas except Northeastern region. This fact shows how enormous and drastic high economic growth led by the bubble urban economy at the stage of Bangkok Metropolitan Region. Anyway, the income per household of rural area in Northeastern region has been consistently the lowest level since 1981. Especially in 1990, the income per household in Bangkok Metropolitan Region was 3.6 times higher than in rural area of Northeastern region, and consequently, its disparity was maximum in last 14 years since 1981.

Based on the above-mentioned, then, on alleviating the poverty of rural areas or villages in Northeastern region and improving one-pole over-concentration of industrial activities toward Bangkok Metropolitan Region, macro regional development policy implemented so far by the government is necessary to be

Table 2 Number of Firm Applications by Zone

	Zone 1	Zone 2	Zone 3
1987	448	80	104
1988	661	351	470
1989	536	322	325
1990	399	250	280
1991	193	154	259
1992	149	80	165
1993	199	133	523
1994	237	186	768
1995	169	229	806

Source : Thailand, Office of the Board of Investment.

Note : All provinces and areas comprising Zone 1, Zone 2 and Zone 3 are as follows respectively.

- 1) Zone 1 : Bangkok Metropolitan Region (BMR)
Bangkok Metropolitan Administration (BMA) and 5 provinces of ①Nonthaburi, ②Pathum Thani ③Samut Prakan, ④Samut Sakhon, ⑤Nakhon Pathom
- 2) Zone 2 : 10 provinces surrounding BGM
①Samut Songkhram, ②Ratchaburi, ③Kanchana Buri, ④Suphan Buri, ⑤Ang Thong, ⑥Ayutthaya, ⑦Saraburi, ⑧Nakhon Nayok, ⑨Chon Buri, ⑩Chachoengsao
- 3) Zone 3 : 57 provinces of the remainder and two industrial estates of Laem Chabang, Maphutaphut

examined. Some measures worked strongly by the government have aimed at promoting the decentralization of industrial activities away from Bangkok or Bangkok Metropolitan Region into the provinces in Northeastern region.

In fact, the third National Economic and Social Development Plan (NESDB : 1971-1976) definitely referred to decentralization policy of industries in Thailand for the first time in the early 1970s, which was actually pushed on forward with investment promotion policy and development of industrial estates by BOI (Board of Investment). Investment promotion policy for decentralization of industries into provincial areas was introduced by BOI since 1973.

The need for decentralization has continued to be emphasized since the Fourth Plan (NESDB : 1976-1981) based on a decentralized urban growth strategy. Especially in the Fifth Plan (NESDB : 1981-1986), in the case of Northeastern region, Khon Kaen as well as Nakhon Ratchasima designated as the region urban growth center where the trickle down effect (ripple effect) through the concentration or agglomeration of growth industrial activities would be expected to accrue to its surrounding rural

areas. In the Fifth Plan, additional incentives were offered for small-and medium-scale, labour-intensive industries in provincial areas. Under investment promotion policy by BOI, the country continued to be classified into three investment zone with different favorable measures in order.

Moreover, in the improved investment promotion policy by the government (BOI) in 1993, Northeastern region classified as zone 3 could receive the most generous incentives to create industrial development, employment opportunity and improve incomes in rural areas. Improved incentives in zone 3 include privileges previously restricted for export promotion to be permitted for domestic production, and tax exemptions for firms relocating from congested areas to the outer zone in addition to enhancement of existing incentives.

As a consequence, firms (investment) applications has rapidly increased in zone 3 since 1993, with totalling 806 firms in 1995 compared with 523 in 1993, so to speak, with its increase rate of 3.9 times between 1993 and 1995, as showned table 2.

Nevertheless, Northeastern region has not much greater attractions than other locations in terms of infrastructure such as water, electricity and transport, especially industrial estates as well as closer proximity to the main area of industrial activity and consumer demand, although Nakhon Ratchasima has developed into the region's center of manufactuaring growth, with its closer proximity to Bangkok and the Eastern Seaboard. With frequent decentralized policy by the government, it seems unlikely that there would be any immediate and drastic results in regional development in Khon Kaen province especially.

III Field Survey Plan and Questionnaire on Migration

Recognizing the general background of Northeastern region in the previous section, after preliminary field survey in the end of July, 1998, large-scale field survey study was planned to be conducted to make clear the level and extent of functional linkage through the movement of labour force population or migration between Khon Kaen city as regional growth urban center and its surrounding rural areas, which were assumed to be influenced strongly by it.

The period of field survey was decided to set up from the beginning to the middle of November, 1998. Three target villages selected out for field survey are as follows:

- (1) Nong Bua village, Bang Fang district, Khon Kaen province within the radius

of about 30km to the west of Khon Kaen city, located in the flat land along the national road route 12.

- (2) Ban Hoi village, Chum Phae district, Khon Kaen province within the radius of about 70 km to the west of Khon Kaen city, located in the flat land along the national road route 12.
- (3) Na Wong Duan village, Khon San district, Chaiyaphum province within the radius of about 100km to the west of Khon Kaen city, located at the foot of 500 ~ 700m above sea level upland or mountains along the national road route 12.

The actual conditions of investigation on the movement of population for employment or migration and regional labour market for three target villages would be expected to provide the useful information on the level and extent of influences in their rural economies of Khon Kaen city as growth pole which was centered around local economic development area in Northeastern region. However, as the results of preliminary field survey already conducted in July, it has proved that the origin place of off-farm labour which worked at factories in Khon Kaen city was restricted to district Ban Tun district located within the radius of about 10 km to the west of Khon Kaen city due to the considerable rate of transport cost for coming and going to the job place in total earning, 150-200 baht per day, if it is a long way to the destination place from Ban Tun. It also turned out that the destination place of migration away from three target villages was not always limited to Khon Kaen city or its suburbs, and attraction of Bangkok or Bangkok Metropolitan Region was even greater than that of Khon Kaen city.

It will be naturally assumed that the level and geographical patterns of migration based on migrant characteristics by age, gender (male or female), educational attainment, seasonal factor greatly influenced by agricultural production (rain-fed paddy field) under the climate which definitely consists of rainy season (from November to May) and dry season (from June to October) and so on are also described in different ways. As Mike Parnwell pointed out in his book "Population Movements and the Third World" (see references), occurrence of many migrants across Khon Kaen province boundary away from three target villages may reflect the failure of regional development process on basis of decentralization policy by the government, although it is too early to judge the full impact of Khon Kaen city as growth urban center on its surrounding rural areas.

So, a study focussing on migration across the sub-district (tambon), frequently Khon Kaen province, even Northeastern region has been devoted to undertake to

inspect the role and significance of Khon Kaen city as expected to become urban growth center in local economic development core, in addition to analyze the response to the decentralization policy aiming at the improvement in inequal regional structure of Thailand. In the rural area which has been steadily declining with the chronic migration and stagnant agricultural production, like Northeastern region, some local cities as regional growth pole have been expected to grow supporting themselves by creating new job opportunity and making better use of regional resources efficiently.

From the above viewpoint, in November, large-scale and door to door household field survey made on 300 families, about 1,500 persons has been planned to get the useful information on the level, geographical patterns and some types of migration in three villages, by using household questionnaire made by myself to interview with respective heads and presentatives of household. Household questionnaire paid attention to draw seasonnal migration has been already made as shown below, immediately in reference to the definition and types of migration used in National Migration Survey of Thailand conducted in 1992 by Institute for Population and Social Research, Mahidol University.

One of the most anxious questions may be now whether large-scale household survey based on door to door interview form scheduled in November will be carried out completely or not, although it has been already got cooperation with Prof. Sekson Yongvanit and his some students belonging to Department of Social Sciences, Faculty of Humanities and Social Sciences, Khon Kaen University. Some students who will take part in household field survey as interviewer are certainly indispensable to be convinced of the aim, the meanings and method of household questionnaire for the success in it. It is not too much to say that household field survey depends considerably on the cooperation with some students involved and many residents as interviewee in field survey village.

■ Questionnaire for Migration Information ■

Day of Survey	Village's Name	Household Number	Interviewer's Name

- (1) Fill in the following each blanks form comprising section I —Ⅲ, 19 subjects A —S with marks (codes) applicable to them by identifying only one choice from a series of categorized choice groups A—S respectively. Pay attention to some matters related to the concept and definition of subjects respectively in filling in the following blanks.
- (2) Respondents interviewed for the household questionnaire are principally the household head, the spouse of the head or both, and/or other key members of the household.

I Characteristics of Household Members

NO.	A	B	C	D
NO. 1				
NO. 2				
NO. 3				
NO. 4				
NO. 5				
NO. 6				
NO. 7				
NO. 8				
NO. 9				
NO. 10				

II Migration of Household Members

II - 1 Migration by Village of Current Residence (In-Flow Population)

NO.	E	F	G	H	I	J	K	L	M
NO.									
NO.									
NO.									

(Usual & Non-Usual Residents)

II - 2 Migration by Village of Previous Residence (Out-Flow Population)

NO.	E	F	G	H	I	J	K	L	M
NO.									
NO.									
NO.									

(Former Residents)

Ⅲ Conditions of Farmhouse/Rural Economy

N	O	P	Q	R	S

A : Presence of Household Members

A1 Head of Household	A2 Spouse of A1	A3 Grandfather of A1
A4 Grandmother of A1	A5 Father of A1	A6 Mother of A1
A7 Son of A1	A8 Spouse of A7	A9 Daughter of A1
A10 Spouse of A9	A11 Child of A7－A8	A12 Child of A9－A10
A13 Others		

- (1) Household members are defined as both persons who eat and sleep as members of the household, and persons who previously were household members but had been absent for more than one month in the 24 months (2 years) prior to the survey.
- (2) Fill in the blanks with marks (codes) in order, such as A1, A2, A3, A4.

B : Sex of Household Members

B1 Male	B2 Female
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C : Age of Household Members

Fill in the blanks with the number of age concretely
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D : Three Types of Household Residents

D1 Usual of Residents	D2 Non-Usual Residents	D3 Former Residents
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- D1 : Usual residents are defined as persons who eat and sleep as members of the household for more than one month.
- D2 : Non-usual residents are defined as persons who are household residents for less than one months.
- D3 : Former residents are defined as persons who previously were usual residents in the 2 years prior to the survey, but had been absent for more than one month.

E, F, G : Identify of Migrants

All choices which have been already identified in the above A, B, C choice groups respectively.

- (1) Fill in the blanks of E, F, G questions with migrants members and their sex, age selected of all household members who have been already identified in the above section I, A, B, C questions respectively, based on the following definition of migration (2).
- (2) Migration is defined as a movement for more than one month across a sub-district (tambon) that occurred within the 24 months (2 years) prior to the survey. The migrants may have lived in more than one region at any time during the previous 2 years, but only information on the last move is available in this survey.

H : Three Types of Migration

E1 Single Move E 2 Seasonal Migrants E 3 Repeat Migrants

H1 : Single Moves are defined as persons who moved only once in the previous 2 years.

H2 : Seasonal migrants are defined as persons who moved two or more times in the previous 2 years and at least one of those moves was described as being for seasonal employment reasons.

H3 : Repeat migrants are defined as persons who has moved two or more times in the previous 2 years, with no move for seasonal employment reasons.

I : Period of Migration (Staying)

I1 less than 1 month	I2 1-2 months	I3 2-3 months
I4 3-4 months	I5 4-5 months	I6 5-6 months
I7 6-12 months	I8 12-18 months	I9 18-24 months

J : Direction of Migration

J1 within District-Rural J2 within District-Urban
 J3 within Khon Kaen prov.-Rural J4 within Khon Kaen prov.-Urban
 J5 Northeast-Rural J6 Northeast-Urban J7 North-Rural
 J8 North-Urban J9 South-Rural J10 South-Urban J11 Central-Rural
 J12 Central-Urban J13 Bangkok Metropolitan Region (BMR)
 J14 Bangkok J15 Foreign

- (1) Direction by village of CURRENT RESIDENCE (Usual Resident & Non-Usual Resident) (In-Flow Population) means the ORIGIN PLACE from which migrants moved.
By contraries, direction by village of PREVIOUS RESIDENCE (Out-Flow Population) means the DESTINATION PLACE to which migrants moved.
- (2) Urban area is considered as the boundaries which correspond to area comprising both Thetsaban aund Sukhaphiban. Bangkok Metropolitan Region (BMR) comprises Krungthep mahanakhon (Bangkok), Nontaburi Province, Pathum Thani province and Samut Prakan province.
- (3) If there are especially migrants who marked J15 Foreign, jot down the name of foreign countries in the margin concretely.

K : Education Attainment of Migrants

K1 None	K2 Some Primary	K3 Primary graduation
K4 Secondary	K5 College/University	

K2 : Some primary means migrants who did not complete all courses of primary school.

L : Occupation at Destination of Migration

L1 Agriculture	L2 Manufacturing/Factory Labor	
L3 Manufacturing/Office Labor	L4 Transport	L5 Construction
L6 Sales	L7 Service	L8 Student
L9 Looking for Work		
L10 Not in Labor Force	L11 Unclassified	

M : Marital Status of Migrants

M1 Never Married	M2 Married Spouse-Presense
M3 Married Spouse-Absense	M4 Widow
M5 Divorced/Separated	

N : Size of Landhold (Rai)

N1 nothing	N2 0-2	N3 2-5	N4 5-10
N5 10-20	N6 20-30	N7 30-50	N8 50-70
N9 70-100	N10 more than 100		

O : Type of Agricultural Management

O1 Non-Agriculture	O2 Rice Only	O3 Cash Crop Only	O4 Fruit Only
O4 Rice Mainly + Cash Crop		O5 Rice Mainly + Fruit	
O6 Cash Crop Mainly + Rice		O7 Cash Crop Mainly + Fruit	
O8 Fruit Mainly + Rice		O9 Fruit Mainly + Cash Crop	
O10 Rice + Cash Crop + Fruit (Diversified)			
O11 Rice + Cash Crop + Fruit + Livestock (Diversified)			
O12 Rice+ Cash Crop + Fruit + Livestock + Fishery/Culture Farming (Diversified)			
O13 Unclassified			

- (1) Types of agricultural management roughly express the basic combination of crops or farming land use on which household revenue mostly depends.
- (2) Cash crop includes crops such as cassava, maize, kenaf, sugar cane, cotton, mulberry and various kinds of vegetables, and livestock includes cattle , swine, buffalow, poultry and so on.

P : Household Revenue per a Year (BH)

P1 less than 30,000	P2 30,000—50,000	P3 50,000—70,000
P4 70,000—100,000	P5 100,000—150,000	P6 150,000—200,000
P5 200,000—250,000	P6 more than 250,000	

- (1) Household revenue per a year is roughly for about average revenue of those earned in the previous two years prior to this survey.
- (2) Household revenue is for both farm revenue and off-farm revenue including remittance recieved from migrants.

Q : Depend on Remittance per a Year (BH)

Q1 less than 3,000	Q2 3,000—5, 000	Q3 5,000—10,000
Q4 10, 000—20,000	Q5 20,000—30,000	Q6 30,000—50,000
Q7 50, 000—100,000	Q8 more than 100,000	

- (1) Remittance per a year is roughly for about average household remittance of those received from migrants in the previous two years prior to this survey.
- (2) There are various methods of remittance, for example, by bring back cash or goods when migrants returned home, or by sending from where they were living and bringing them home on a visit so on.

R : Use of Remittances

- R1 Purchase of Agricultural Production Means (Land, Fertilizer, Insecticide, Tractor)
- R2 Purchase of Durable Consumer Goods (Vehicle, Telephone, Videocassette etc.)
- R3 Purchase of Undurable Consumer Goods (Food, Clothes, Daily Necessities etc.)
- R4 Payment of Educational Expenses for Children (Investment in the Future)
- R5 Payment of Medical Fees and Medicine
- R6 Improvement of Housing (including New House Construction)
- R7 Use for Recreation, Ceremonies, and Other Non-Essential Items
- R8 Pay off Debt
- R9 Savings

S : Request for Rural Development without Migration

- S1 Rise in Prices of Agricultural Product and Policy Support
- S2 Improvement of Agricultural Productivity and Management Diversification
- S3 Increase in Off-Farming Income Potential (Promotion of Rural Industry etc.)
- S4 Improvement of Rural Transport and Information Networks
- S5 Improvement of Water Supply (Irrigation, Reservoirs Canals, Ponds etc.)
- S6 Improvement of Health, Education, and Welfare Service Facilities
- S7 Reinforcement of Co-Operatives, Community Development
- S8 Growth of Khon Kaen as Regional Capital of the Northeast Region
- S9 Correct of Inequality Development in Thailand (Decentralization Policy)

References

- Aphichat Chamrathirong et al. *National Migration Survey of Thailand*, Institute for Population and Social Research in Mahidol University, 1995, pp.1-41.
- Chalongphob Sussangkarn, *The Thai Labor Market : A Study of Seasonality and Segmentation*, Thailand Development Research Institute Foundation, 1987, pp.17-28.
- David Robinson, Yangho Byeon, and Ranjit Teja wiht Wanda Tseng, *Thailand : Adjusting to Success Current Policy Issues*, International Monetary Fund, Publication Service, 1991.
- Duangkamon Chotikapanich, *Techniques for Measuring Income Inequality : An Application to Thailand*, Avebury, 1994, pp.88-144.
- Endo, Gen., "Competition over Local Consumer Market and Response of Local Distribution Firms in Thailand," *Shoho*, No. 428, 1997, 10, pp.11-14. (in Japanese)
- Endo, Gen. , "Current Trends and Issues in Studies of Local Economy in Thailand : with special reference to studies on provincial businessmen," *The Human Geography*, Vol. 48 No. 5, The Human Geographical Society of Japan, 1996, pp.27-45. (in Japanese)

- Ikemoto, Yukio., "Income Disparity in Thailand from 1981 to 1994," *Shoho*, No. 428, 1997, 10, pp.26-33. (in Japanese)
- Jenny Muller, *Income Distribution in the Agricultural Sector of Thailand : Empirical Analysis and Policy*. Development economics and Policy 8 edited by Franz Heidhues, Peter LangGmbH, 1996.
- John Walton, "Problems of Regional Industrial Development in North-East Thailand," *Uneven Development in Thailand*, edited by Michael J. G. , Avebury, 1996, pp.109-124.
- Kerry Richter et al. *Migration and Rural Family : Sources of Suppot and Strain in a Mobile Society*, Institute for Population and Social Research in Mahidol University, 1997.
- Michael J. G. Parnwell and Suranart Khamanarong, "Rural Industrialization in Thailand : Village Industries as a Potential Basis for Rural Development in the North-East," *Uneven Development in Thailand*, edited by Michael J. G. , Avebury, 1996, pp.161-185.
- Mike Parnwell, translation by Masanori Koga eds. *Population and the Third World*, Kokonshoin, 1996. (in Japanese)
- Ogawa, Yuhei. eds. *Industrialization and changing Society in Thailand*, Kyusyu Daigaku Shuppankai, 1995. (in Japanese)
- Pasuk Phongpaichit and Chris Baker, *Thailand's Boom and Bust*, Silkworm Books, 1998.
- Prapant Svetanant, "Economic Development of Northeasten Region in Thailand," *Thai Economy toward 2000 year*, edited by parapant Svetanant and Hayashi, Toshiaki., Institute for Asian Economic Research, 1995, pp.71-98.
- Takahashi, Shinichi., "Demographic Transition in Rural Northeast in Thailand : Two Population Regimes According to the Relationship between Population and Resource Use," *Research Papers on Interrelationship between Population Growth in Developing Countries and Global Environment Volume II*, National Institute of Population and Social Security Research, Ministry of Health and Welfare, Tokyo, Japan, 1997, 3.
- Tasaka, Toshio. eds. *Big City in Asia (1) Bangkok*, supervised by Institute for Economic Research, Osaka City University, Nihonhyohronshya, 1998. (in Japanese)
- Varakorn Samakoses, Makisima Minoru and Taniguchi Koji eds. *Local Economic Development Core for Decentralization of Industries in Thailand*, Institute for Asian Economic Research, 1994, pp.3-67. (in Japanese)

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